



The Blurb



Newsletter of The Phil-Mont Mobile Radio Club

62 Years of Public Service, 1949 to 2011

Volume 62 Number 1

www.phil-mont.org

January 2012



Happy New Year to all!!!
2012 is here and that means...

Dues are Due...
Don't make our treasurer track you down

Auctionfest is just around the corner...
Your form is enclosed, fill it out before you arrive

Spring is just two months away!

<i>The Blurb</i> is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. <i>Copying and quoting</i> is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. <i>Subscriptions</i> are available to non-members for \$12, addressed to the Treasurer. Editor: Rick DeVirgiliis ND3B nd3b@arrl.net 215-908-7225 Labels and mailing: KB3IV Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.		Directors: WU3I (12) W3MHP(12) KB3SJS(12) WA3KIO(13) N3QV(13) ND3B(13) KB3IV(A)	Contact Phil-Mont: P.O. Box 88 Abington, PA 19001 http://www.phil-mont.org Website: Eric N3QV & Andrew KC2PMW For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: KB3IV
		Sunday Morning Net Schedules • 2 Meter/ 70cm Net..... at 0930L on W3QV repeater • 10-on-10 Net at 1000L 28.393 MHz USB (±QRM) • 75 meter Net at 1020L 3.993 MHz LSB • ARES at 2100L on the W3QV repeater	
Committees Audit: NS3K Blurb folding: KB3IV & N3GLU Directory: KB3IV	DX: N3MT Emerg.Coor: K3HWE Field Day: KE3QB Internet: N3QV & KC2PMW Membership: N3XKE	Net Control: KB3IV Publicity: W3RM Program: Club VP Public Service: KE3QB Refreshments: W3AOK Repeater: W3AOK	Scholarship: W3RM Skywarn: WX3PHI Sunshine: N3GLU VE Program: NS3K Welcome: N3UBY Youth: KC2PMW

All visitors are welcome!

The club meets at 7:30 PM on the *second* non-holiday Wednesday each month except July and August at **Roxborough Memorial Hospital**, 5800 Ridge Avenue, Philadelphia, PA 19128
Maps and directions are available at www.phil-mont.org.

License Examinations are held on the fourth **non-holiday Thursday** each month at **Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002**
Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.

Club Stations W3QV/R: The Jim Spencer Memorial Repeater System
Ridge & Port Royal Avenues, Philadelphia, PA **Trustee: W3RM**
147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz
Reach us on EchoLink through W3QV-R
W3AA Trustee: WU3I
W3EM: Field Day/special event station Trustee: N3QV

The Officers

Pres: KB2ERL Bob Nicotera bnic1903@msn.com
Vice Pres: W3STW Al Tribble wstw@juno.com
Sec: KB3MIV Jen Miller jencaz@verizon.net
Treas: W3RM Richard A. Moll roger.mike@verizon.net
Asst. Treas: N3MT Michael P. Taraborrelli michaelmt_1999@yahoo.com

The Prez Sez ...



THE OUTGOING PREZ SEZ ...

This could very well be the last time ever that I am writing a Prez Sez column. Why? Because it's time to pass the gavel, torch, no, PTT along to others. They will bring fresh ideas and leadership to Phil-Mont. I won't be out of the picture, since the outgoing President fills the appointed Director's slot on the Board. I joined Phil-Mont in 1980 and have been an officer every year since 1982. I have no plans to stop now, unless the membership says "There's the door, don't let it hit you, you know where, on the way out".

I will be giving 100% support to Bob, KB2ERL, our new President, and Al, W3STW, our new Vice-President. Congratulations to Eric, N3QV, Fred, WA3KIO, and Rick, ND3B our newly elected Directors. There were no losers in the election, since the other candidates will be appointed to the two slots vacated by our incoming President and Vice-President. Welcome to the board, Frank, W3MHP and John, KB3SJS.

All members will be receiving their 2012 Club Dues Invoice and Directory Update form in the mail. Please respond in a timely fashion so we won't have to send additional mailings the following month. Check the directory information and make any corrections and return the form with your check to the Treasurer.

January is my favorite meeting month. We will be holding our 16th annual Auction Fest on Wednesday Jan 11. This event has been and will continue to be the best Ham Radio Auction conducted by any

group in the Greater Delaware Valley. Look for the Auction Flyer and Auction Rules Form in this edition of the Blurb. It will also be available on the Club Web Site. If you plan to sell anything, please fill out the information on the form before you arrive that evening. Be sure to have a separate form for each item to be sold. Arrive early to set up and look over the other items offered for sale. We do have time constraints imposed by the Hospital, so we must move things along in a timely fashion. Do talk up the event on any other repeaters you frequent and invite others to attend.

I know I thanked everyone in last month's column for their continued support, but you never can say "Thank You" enough to people who give of themselves to the success of an organization like Phil-Mont. We are in our 63rd year because of all of you.

de Ed, KB3IV

Many thanks to Ed for all his time and energy devoted to the club this past year!

Phil-Mont Birthdays & Tidbytes

January Birthdays

03 Jon Verlin - K3VU
05 Dorene Weiner (XYL WX3PHI)

15 Karen Lenczynski (XYL KA3EIP)

22 Joe Gromley Jr. - N3UGI

30 Bill Kane - N3OOL

Membership Stats

At press time PMRC had:

83 Full Paid Members

8 Family Members

4 Youth Members

1 Honorary Member



*This month's Thursday evening VE session
is on the 26th.*

As always, many thanks to our VE team!

From the Secretary

Board Meeting Minutes 12/7/11

The PMRC BoD held its regular monthly meeting on December 7th 2011. Attending were Rick ND3B, Bob KB2ERL, Steve WU3I, Ed KB3IV, Eric N3QV, Dick W3RM, Al W3STW, and Gene, N3XKE. Ed called the meeting to order at 2010 hours and began to ask for reports.

The first report came from Dick, Club Treasurer. The report gave reconciliation for the past three month's expenses and a motion to accept the report as read passed. Dick also outlined the club's participation in the 2012 FAR scholarships noting that this is the club's tenth year of participation. For the year 2012, the club will provide two \$2,000 scholarships.

After discussing a suggestion to meet every other month, the BoD adopted the suggested change in BoD meetings. Thus in 2012 the BoD will meet the first Wednesday of January, March, May, September and November.

Reviewed were club membership applications from Doug WA3DSP, Randy KB3WHN, and Bryan KB3WHR. All were accepted after a brief discussion. The BoD congratulates Doug, Randy and Bryan on their acceptance as PMRC members.

The BoD discussed a club jacket project or perhaps a heavy zip-up sweater with the club emblem on the

back, and no call sign, to minimize cost. This project remains just an idea for now.

The BoD thanks President Ed for his efforts in trying to minimize the mail delivery damage that has been happening to the Blurb. Ed, leader that he is, would not accept credit without mentioning the assistance we all receive from the Blurb folding committee.

General Meeting Minutes 12/14/11

PMRC President KB3IV called the meeting to order at 1950 hours local time. Ed gave words of welcome to members and visitors. Ed requests volunteers for the club's Sunday morning 2, 10 and 75-meter nets. Net control stations perform about every eight weeks.

Club treasurer Dick W3RM, reports that the club's finances are in great shape. Dick also tells us that the club has been participating in the FAR program for ten years and is happy to report that the club will support FAR with the donation of two \$2,000 scholarships in 2012.

Ed reminds us about the January 11, 2012 Auctionfest. If you are a seller please get and the fill out the required form in a timely manner so that the opening bid and equipment can be placed on display with minimal additional time explaining what it is the prospective bidder will be bidding on. Ed says get on the repeater and "talk it up".

There being only one candidate for each office the acting Secretary, Al W3STW, as instructed by the President, cast the deciding vote for Bob, KB3ERL, President; Al W3STW Vice President; Jen KB3MIV; Secretary and Dick, W3RM; Treasurer. There are five members seeking three positions for Director.

Directors are elected by secret ballot. Bill, Judge of Elections, appointed by the President, reports the following: Eric, N3QV; Fred, WA3KIO and Rick, ND3B are Directors for the next two years, January 2012 through December 2013. Frank, W3MHP and John, KB3SJS are Directors for the next year,

January through December 2012. The new President will appoint Two Directors.

Jim NS3K, VE chairman, reports that at the last VE test session one candidate went from no license to Extra Class, two candidates from no license to General Class and one candidate earning a Technician Class License. Congratulations to all!

With the business of the club concluded, Ed introduced the night's speaker, Philip, K3TUF. Philip is active on the bands from 160m through 1.25cm and described his station and operating style. An avid supporter of the ARRL, Philip also wants us to lend him our support as the Section Manager to replace the out going SM Eric Olena WB3FPL. Good Luck Philip.

Al, W3STW,

Acting secretary and 2012 Vice President

DIRECTORY UPDATE

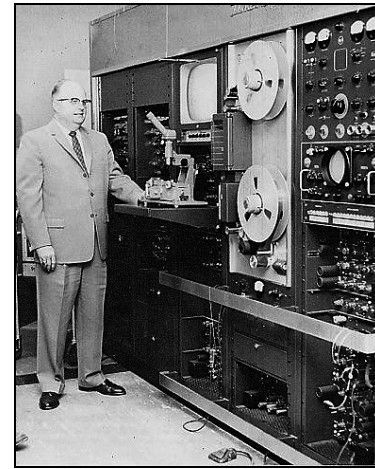
Your 2012 Dues Invoice/Directory Information Sheet will be sent to you in a separate mailing. Please verify the information and return it with your dues & optional P.M.R.C. SCHOLARSHIP FUND DONATION to: DICK MOLL P.O. BOX 88 - ABINGTON, PA 19001-0088... Your early reply will save the club additional expenses and will speed-up the publishing of the 2012 P.M.R.C. Directory.



ARRIVAL OF TRANSISTORS

It was sink or swim

Bob Thomas, W3NE



Disruptive Technology is a term that has been appearing in recent financial and technical articles. It refers to a new development that is so revolutionary it causes a total break with the past and initiates radical societal changes. Depending on how far back you want to go, examples of that are fire and the wheel. The most spectacular example of disruptive technology in modern times is developments in atomic physics that have been applied to military weapons and peaceful products for medicine and industry. Less dramatic but still far-reaching disruptive technologies occurred in transportation (the automobile and mass production methods) and communications (telegraph, wireless, and radio). The latter eventually opened the door to advances in solid state physics, leading to the most recent disruptive technology – invention of the transistor.

If you think introduction of transistors was not disruptive, think again. At the RCA Broadcast Systems Division we had been going merrily along introducing new tube-based equipment at a furious rate for cameras, monitors and processing equipment. We knew all about tubes and how to use them, and manufacturers continually provided us with improved types. In 1958 my section introduced a tube-based video tape recorder (VTR) for television based on an Ampex invention. That VTR occupied three 7-foot racks and consumed 3.5KW. If you wanted to record and playback color, that took another two racks! Four years later transistors

were developed sufficiently to enable us to design the first solid state VTR housed in a console about the size of a large upright piano. What happened in the interval between the first tube VTR and the solid state machine was a disruptive technology with a profound impact that is the topic of this article.

The first brush with transistors in our lab occurred in the early 'fifties when Bob Dennison, W2HBE took home a couple of 1N34 germanium diodes. Those diodes are made with a tiny pointed wire ("cat whisker") that presses against a pellet of germanium; one diode lead goes to the pellet and the other to the cat whisker. Rectification occurs at the point of contact. That evening Bob broke open two diodes. He removed the cat whisker from one of them and arranged it to press against the germanium pellet of the other diode only a few thousandths of an inch away from that diode's original c/w. The new assembly became a point contact transistor where the original c/w performed as the emitter, the added c/w acted as the collector, and the germanium pellet as the base. Although crude, Bob's kitchen table transistor exhibited a gain of 2, which wasn't bad considering its origin and era.

We were certainly aware of the eventual value of solid state devices for broadcast equipment, but for many years transistors suffered from large variations in characteristics, limited bandwidth, power limitations, and unreliability. Before long, point contact transistors were supplanted by junction devices that not only improved uniformity and reliability, they enabled manufacture of both PNP and NPN transistors to lend great flexibility in circuit design. Bandwidth was increased to hundreds of megacycles for some types, and use of hermetically sealed metal cases improved reliability of premium transistors by preventing contamination after manufacture. By 1956 those efforts elevated transistors from an experimenter's curiosity to a viable contender for application in commercial equipment.

Many of the innovations described above were pioneered at the new RCA semiconductor research and production facility in Sommerville, NJ. Because of its major role in the new field of semiconductors,

the Corporation had a compelling interest in rapid deployment of its latest products, so the Broadcast Systems Division in Camden was charged with immediately implementing the technology in all new designs. In preparation for our task, Bell Labs was contracted to supply a crash course in solid state technology for all our engineers. Night classes were held for lectures that concentrated on solid-state physics. Each class was supplemented by voluminous notes on related topics that had to be learned between classes to avoid falling hopelessly behind. Of course all that had to be fitted within normal work, family responsibilities and sleep. Even so, that highly theoretical education hardly equipped us to begin designing circuits with transistors that would be viable in an already sophisticated, demanding market. For that, a few of our talented engineers presented another in-house after hours training seminar, this time emphasizing the practical, real life aspects of solid-state circuit design. Classes were held two nights a week for several months until a high degree of confidence pervaded the entire engineering department to ensure we were ready for the task ahead.

This would be no gradual, evolutionary segue from tubes to transistors; it was a wrenching, instantaneous, and permanent departure from our association with vacuum tube circuit design into the new culture of solid-state. One of the biggest changes was the total break from reliance on published characteristic curves, which had been so essential for tube-based circuit design, but were utterly misleading for design of transistor circuits. Another concept seldom considered with tubes was emphasis on temperature stability. On the other hand, we no longer had to be concerned about getting knocked on the can by a 280-volt half-Ampere regulated power supply!

It wasn't easy going – in fact it was *disruptive* – but almost overnight an all-new studio and field broadcast equipment product line appeared for audio (of course), VTRs, switchers, monitors, transition generators, cameras and video processors. Integrated circuits were taken in stride and we never looked back, well almost never; some of us continue our interest in restoring and using ham radio boat anchors that still rely on ancient hollow-state technology that glows in the dark.



PHIL-MONT MOBILE RADIO CLUB, INC.

15th ANNUAL HAM RADIO **"AUCTION-FEST"**

WEDNESDAY, JANUARY 12, 2011

7PM

AT PHIL-MONT'S MEETING PLACE

WOLCOFF AUDITORIUM

ROXBOROUGH MEMORIAL HOSPITAL

5800 RIDGE AVE. (Ridge Ave & Jamestown St.)

PHILADELPHIA PA 19128

TALK IN: 147.030 (91.5PL)

For More Information Contact:

DICK, W3RM

P.O. BOX 88 - ABINGTON, PA 19001

OR E-MAIL

five9plus@yahoo.com

(See Reverse Side For Auction Details)

AUCTION RULES

1. P.M.R.C. will retain 10% of the sale price up to a max. of \$30.00 per item.
2. All sellers will pay a \$2.00 sellers fee to P.M.R.C.
3. Seller must supply a thorough description of each piece offered for sale on a separate form. (you may make copies of this form)
4. All sales are between the seller and buyer, not P.M.R.C.
5. P.M.R.C. will be held harmless in all transactions between buyer and seller.

***THIS AUCTION IS INTENDED TO BE A FUN EVENT HOSTED BY P.M.R.C.
AND WILL STAY IN THAT SPIRIT!***

I AGREE TO THE ABOVE RULES.

**NOTE: LIST ONLY ONE ITEM PER FORM-
FOR ADDITIONAL ITEMS PLEASE MAKE COPIES OF THIS FORM**

Seller_____Call_____

Buyer(for club use)_____Call_____

Item_____Model#_____

Start Bid at \$_____

Minimum bid you will accept \$_____

Tell us about this item_____

[illegible]

For Sale

Optoelectronics FC-50 frequency counter,
ARRL handbooks 1933 - onward
Kreco 10 meter coaxial vertical antenna,
Antique headphones,
Multimeters,
and old technical books.

Contact Tom Bohlander WA3KLR

Contact Tom Bohlander WA3KLR, 215-536-1331

Check out this rope for your antenna project –

3/32" Braided Olive Drab - Dacron / Polyester cord

This is a high quality braided polyester cord with a breaking strength of 210 pounds. Proudly Made in the U.S.A.!

This is a gorgeous solid braid perfect for dipole antennas. Very low stretch and strong. Will withstand the weather & sun for 7 to 10 years.

*PRICE \$10.00 PER 100 FEET
SOLD IN 100 FOOT LOTS
CONTACT STEVE WU3I AT
WU3I@ARRL.NET*

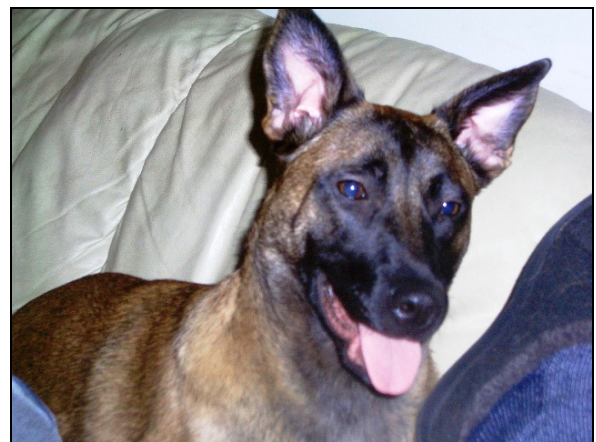
Have you heard about D-Star?

Philadelphia Digital Radio Assn meets the first non-holiday Monday of each month at the Community Ambulance Assn 1440 East Butler Pike Ambler, Pa. 19002 at 7:00 pm.

The club has two D-star repeaters on the following frequencies: On two meters - 146.61 (-) and on 70 cm 445.18125 (-)

I run a weekly club D-star net on Mondays at 8:00 pm local time on the club 2 meter frequency.

de Jim, NS3K



*Coco sez ... happy new year!
Naow gimme a treet.*

January at PMRC ...

1st Sun W3STW NCS
4th Wed Board Meeting
8th Sun N3OWM NCS
11th Wed General Meeting & Auctionfest!
13th Fri Blame Someone Else Day
15th Sun KB3IV NCS
16th Mon Martin Luther King Day
22nd Sun KA3IRJ NCS
26th Thurs VE test session
29th Sun N3QV NCS

And don't forget the **ARES** net every
 Sunday night at 2100L and the new **Digital**
Net Tuesdays at 1900L, both on W3QV/R

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First Class Mail

The Phil-Mont Mobile Radio Club, Inc
 1700 Street Rd. Apt. H3, Warrington PA, 18976

The Blurb